

Appl. No. 10/668,455
Amdt. dated June 18, 2009
Reply to Office Action of March 20, 2009

PATENT

Amendments to the Drawings:

The attached sheets of drawings include changes to FIGS. 1-3. These sheets replace the original sheets including FIGS. 1-3.

Attachment: Replacement Sheet

REMARKS/ARGUMENTS

This Amendment is in response to the Office Action mailed March 20, 2009. Claims 1-11 were pending in the present application. This Amendment amends claims 1-11 and adds new claims 12-16, leaving pending in the application claims 1-16. Applicants submit that no new matter has been introduced by virtue of these amendments. Reconsideration of the rejected claims is respectfully requested.

Examiner Interview

Applicants would like to thank Examiner Virginia Ho and Supervisory Examiner Gilberto Barron for the telephonic interview regarding this application conducted with Applicants' representative, Andrew Lee, on June 11, 2009. Claims 1 and 4 were discussed in light of Phillips et al. (U.S. Publication No. 2004/0210663, hereinafter "Phillips"). In particular, distinctions between the claims and the Phillips reference were discussed.

With respect to claim 1, the Examiners indicated that the arguments presented were persuasive, but no particular agreement was reached. With respect to claim 4, the Examiners indicated that the arguments presented were persuasive and would likely serve to distinguish claim 4 from the Phillips reference. The following remarks reflect the substance of the discussion.

Objection to the Drawings

The drawings are objected to because "example IP addresses as described in the specification with reference to the drawings should be included in the Figures." (Office Action: pg. 2).

Although Applicants disagree with the objection, solely in order to expedite prosecution the drawings have been amended to include the example IP addresses described in Specification. No new matter is added.

Objections to the Specification

The Specification is objected to because of informalities. The Specification has been amended to address these informalities. No new matter is added.

Objections to Claims 5, 6, and 11

Claims 5, 6, and 11 are objected to because of informalities. Claims 5, 6, and 11 have been amended to address these informalities. No new matter is added.

35 U.S.C. §112 Rejection of Claims 4 and 5

Claims 4 and 5 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. In particular, the Office Action asserts:

As per claims 4 and 5, the claims recite limitations regarding a “*layer 2 subnet*.”

However, those of ordinary skill in the art recognize subnets as being conventionally associated with layer 3 rather than layer 2... For the purposes of examination, a “subnet” will be assumed to refer to the layer 3 subnet known conventionally in the art.

As per claim 5, the claim recites the limitation of “*defining a plane of the layer 2 device to be part of the virtual local area network, wherein the plane of the layer 2 device is assigned a source IP address*”. However, those of ordinary skill in the art would recognize a “plane” as a logical separation used to classify traffic of packets (control, data, and management). As such, it would not be possible to assign an IP address to such a “plane.” However, the specification refers to an embodiment in which “switches in the layer 2 subnets would have **a plane, or port**, which is defined to be included in the MVLAN” (page 6, lines 9-11). For purposes of examination, a “plane” shall be regarded as a “port.”

Additionally, claim 5 refers to “the layer 2 device” and “the first layer 2 device” which lack antecedent basis. It is unclear whether “the layer 2 device” refers to the *layer 2 switch* or to the *network device* of claim 1. For the purposes of examination, the “layer 2 device” shall be regarded as the layer 2 switch.

(Office Action, pgs. 4-6; emphasis in original).

Although Applicants disagree with the rejections, solely in order to expedite prosecution Applicants have amended claims 4 and 5 to replace the phrase “layer 2 subnet” with “subnet.” In addition, Applicants have amended claim 5 to replace “plane” with “port” and to

remove the references to “the layer 2 device” and the “the first layer 2 device.” Accordingly, Applicants respectfully submit that the Section 112 rejections of claim 4 and 5 are overcome.

35 U.S.C. §102 Rejection of Claim 1

Claim 1 is rejected under 35 U.S.C. §102(e) as being anticipated by Phillips. Applicants respectfully traverse.

Applicants’ independent claim 1 (as amended) recites:

A method comprising:
identifying, by a network device, a first port of the network device as a management port, the first port having a gateway address;
identifying, by the network device, a second port of the network device as a non-management port; and
filtering, by the network device, management data packets received on the second port.

(Applicants’ independent claim 1, as amended).

Applicants respectfully submit that the features of claim 1 are not anticipated by Phillips. For example, Phillips fails to disclose “identifying... a second port of the network device as a non-management port” and “filtering... management data packets received on the second port” as recited in claim 1.

The Office Action asserts that Phillips teaches the above features of claim 1 at paragraph 73. (Office Action: pg. 6). Applicants respectfully disagree.

As explained at the Examiner interview, paragraph 73 of Phillips describes a “management virtual router” that uses a “configured Ethernet port for dedicated local or remote system management traffic where it isolates management traffic from data traffic on the system, keeping all other Ethernet ports available for data connections to backend servers.” (Phillips: para. 73; emphasis added). Thus, the management virtual router of Phillips is configured such that system management traffic is kept completely isolated from other data traffic. In other words, system management traffic is only received on one (dedicated) Ethernet port, and other data traffic is only received on other Ethernet ports.

In contrast, Applicants' claim 1 specifically recites that management data packets can be received on a non-management port (i.e., the recited second port), where the management data packets are processed at the non-management port by being filtered. Since Phillips teaches that system management traffic is only received on a dedicated management port (and thus cannot be received on other ports), Phillips necessarily fails to disclose "identifying... a second port of the network device as a non-management port" and "filtering... management data packets received on the second port" as recited in claim 1. (Emphasis added).

Further, even assuming *arguendo* that Phillips can be construed as teaching the receipt of management data traffic on a non-management port, nowhere does Phillips specifically describe the filtering of such management data traffic. At the Examiner interview, Examiner Ho noted that paragraph 78 of Phillips makes reference to filtering data packets based on access control lists. However, paragraph 78 merely describes the general concept of data packet filtering, and does not teach anything about the specific concept of filtering management data packets at a non-management port. Accordingly, Phillips fails to disclose "filtering... management data packets received on the second port" as recited in claim 1. (Emphasis added).

For at least the foregoing reasons, Applicants respectfully submit that independent claim 1 is not anticipated or rendered obvious by Phillips, and respectfully request that the rejection of claim 1 be withdrawn.

35 U.S.C. §103 Rejection of Claims 2 and 3

Claims 2 and 3 are rejected under 35 U.S.C. §103(a) as being unpatentable over Phillips. Applicants respectfully traverse.

Claims 2 and 3 depend from independent claim 1, which is not anticipated or rendered obvious by Phillips as discussed above. Accordingly, claims 2 and 3 are allowable for at least a similar rationale as discussed for claim 1, and others.

35 U.S.C. §103 Rejection of Claims 4 and 5

Claims 4 and 5 are rejected under 35 U.S.C. §103(a) as being unpatentable over Phillips in view of Haviland (“Designing High-Performance Campus Intranets with Multilayer Switching,” 1998, hereinafter “Haviland”). Applicants respectfully traverse,

Claims 4 and 5 depend from independent claim 1, which is not anticipated or rendered obvious by Phillips as discussed above. Accordingly, claims 4 and 5 are allowable for at least a similar rationale as discussed for claim 1.

In addition, claims 4 and 5 recite additional features that distinguish over the cited art. For example, claim 4 (as amended) recites, in part “defining a virtual local area network including the first [management] port.” The Office Action asserts that this feature is shown in Phillips at Figure 4. (Office Action: pg. 8). However, as explained at the Examiner interview, Figure 4 of Phillips merely illustrates a virtual lan A (34A) and a virtual lan B (34N) connected with a default virtual router 40A and default virtual router 40N. Nowhere does Phillips state that either virtual lan A or B includes a management port as recited in claim 1; in fact, the section of Phillips that the Office Action uses to show the recited first management port of claim 1 is in management virtual router 36 (which is completely separate from virtual lan A or B in Figure 4 of Phillips). Accordingly, claim 4 is allowable for at least this additional reason.

35 U.S.C. §103 Rejection of Claim 6

Claim 6 is rejected under 35 U.S.C. §103(a) as being unpatentable over Phillips in view of Haviland, and further in view of Sylvest et al. (U.S. Publication No. 2003/0188003, hereinafter “Sylvest”). Applicants respectfully traverse.

Claim 6 depends from independent claim 1, which is not anticipated or rendered obvious by Phillips as discussed above. As best understood, Haviland and Sylvest do not provide any teaching that would remedy the deficiencies of Phillips in this regard. Accordingly, claim 6 is allowable for at least a similar rationale as discussed for claim 1, and others.

35 U.S.C. §103 Rejection of Claims 7-11

Claims 7-11 are rejected under 35 U.S.C. §103(a) as being unpatentable over Phillips in view of Haviland, and further in view of Glenn (“A Summary of DoS/DDoS Prevention, Monitoring and Mitigation Techniques in a Service Provider Environment,” 2003, hereinafter “Glenn”). Applicants respectfully traverse.

Independent claim 9 recites features that are substantially similar to independent claim 1, which is not anticipated or rendered obvious by Phillips as discussed above. As best understood, Haviland and Glenn do not provide any teaching that would remedy the deficiencies of Phillips in this regard. Accordingly, claim 9 is allowable for at least a similar rationale as discussed for claim 1, and others.

Dependent claims 7, 8, 10, and 11 depend from claims 1 and 9 respectively, and are thus allowable for at least a similar rationale as discussed for claims 1 and 9, and others.

New Claims 12-16

New claims 12-16 have been added to cover various embodiments of the present invention. Support for these claims may be found in the Specification at, for example, FIG. 3 and pages 9-10. No new matter is added.

Applicants respectfully submit that claims 12-16 are allowable over the cited art. For example, independent claim 12 recites, in part:

a control component configured to:

determine if a destination IP address included in a received data packet corresponds to a gateway IP address of the management port;

if the destination IP address does not correspond to the gateway IP address of the management port, determine if the data packet originated from a management virtual local area network (VLAN), wherein the management VLAN includes the management port;

if the destination IP address did not originate from a management VLAN, determine if the data packet uses a management protocol; and

if the data packet uses a management protocol, drop the packet.

(Applicants’ claim 12, in part).

No disclosure pertaining to these specific features could be found in the cited art.

Claims 13-16 depend from independent claim 12, and are thus allowable for at least a similar rationale as discussed for claim 12, and others.

Amendments to the Claims

Unless otherwise specified, amendments to the claims are made for purposes of clarity, and are not intended to alter the scope of the claims or limit any equivalents thereof. The amendments are supported by the Specification as filed and do not add new matter.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,

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